December 08, 2016

R11379-2.6

Attn: Compliance Tracker, AE-17J
Air Enforcement and Compliance Assurance Branch
U.S. Environmental Protection Agency - Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

Ambient Air Lead Monitoring Report
Sampling Period of November 11, 2016 Through November 29, 2016
Behr Site - 1100 Seminary Street – Rockford, Illinois 61104
Site ID No.: 201030AYB

To Whom This May Concern:

Introduction

The Behr Site (Site) has implemented an ambient air monitoring program for lead and arsenic in accordance with USEPA Regions V's Request to Provide Information Pursuant to the Clean Air Act, dated May 5, 2015. An ambient air monitoring station has been installed in accordance with the approved *Ambient Air Lead Monitoring Station Siting Proposal* dated July 7, 2014. The site began operation on September 27, 2015. Station operating procedures, sample collection and handling procedures, and sample analytical methods and procedures have been performed in accordance with the revised *Quality Assurance Project Plan (QAPP)* dated December 6, 2016.

Beginning on September 27, 2015, a 24-hour TSP sample is collected every third day, as requested by USEPA. Sampling dates have been set to meet USEPA's schedule for ambient air lead sampling (i.e. every sixth day) as identified in Attachment A. Samples are held in sealed envelopes in a controlled area on site until a minimum of eleven samples have been collected. The samples are then sent to RTI International in Research Triangle Park, North Carolina for lead and arsenic analyses, in accordance with the methods identified in the QAPP. A summary of individual lead and arsenic measurements reported by RTI for all samples collected during this reporting period is presented in Appendix B.

The Site has also installed a meteorological station to simultaneously record barometric pressure, wind speed, and wind direction during sample collection periods. Met data for this reporting period is presented in Appendix C as 1-hour averages.

Summary of Ambient Air Monitoring Results for This Reporting Period:

A summary of the ambient air monitor measurements for sampling events performed on November 11 through November 29, 2016, is presented in Table 1 attached to this correspondence.

2 SOUTH 631 ROUTE 59; B
WARRENVILLE, IL 60555
(630) 393-9000
FAX (630) 393-9111

This table identifies the sampling date, sample duration, the 24-hour average temperature and barometric pressure data recorded by integrated sensors provided with the high volume sampler (used to adjust actual flow rate to standard conditions), average volumetric air sampling rate, total volume of air collected during each sampling event, as well as the analytical results for lead. The requirement to analyze for, and report, ambient air arsenic concentrations was eliminated by USEPA as of September 27, 2016.

The total mass of lead on the filters (Column J) is divided by the total sample volume at standard conditions (Column H) to identify 24-hour average ambient air lead concentration in Column K.

The 3-month rolling average ambient lead concentration is presented in Column L and is based on all valid samples collected during September, October, and November of 2016 for comparison to the NAAQS standard. The analytical report from RTI International, who has been subcontracted for filter analysis is presented in Appendix B.

The attached table also reports the daily average wind direction and daily average wind speed for each sampling day. The meteorological data for this reporting period is presented in Appendix C, which also includes an aerial photo of the facility identifying the location of the ambient air monitor with respect to other site features.

The Site has retained RK & Associates to assist with submitting monthly lead monitoring reports. If you have any questions, or require any additional information please do not hesitate to contact John Pinion at 630-393-9000 (jpinion@rka-inc.com).

Yours very truly,
RK & Associates, Inc.

John G. Pinion
Associate Engineer

cc: Ms. Sarah Schlichtholz – Director, Environmental and Community Affairs – Alter Treading Inc. – St. Louis, MO
Mr. Patrick Kohlmeier – Environmental Engineer – Behr Site – Rockford, IL
Mr. Eric Boyd – Thompson Colburn – Chicago, IL

Table 1. Summary of Ambient Air Lead Monitoring Results Through November 29, 2016
The Behr Site - Rockford, Illinois

Wind direction data includes adjustment from Oct. 2016 Met Sta Performance Audit

Col -> A	B	C	D	E	F	G	H	I	J	K	L	M	N
						Sample Rate / Volume				Ambient Lead Concentration		Facility Met Data	
USEPA Lead Sample Day (Y)	Day of Week	Sample Collection Date	Sample Duration (days) (hrs)	Avg. Temp °C	Avg. Bar. Pres. mmHg	Average Rate scfm	Total std m^3	Sampler Data Flags	Lead[a] ug/filter	Daily Average ug/m^3	3-Month Rolling Average[b] ug/m^3	Daily Avg Wind Direction Degrees	Daily Avg Wind Speed mph
Y	Sat	09/03/16	24:00	23.60	745.00	42.70	1,740.33		67.16	0.039		133°	2.31
	Tue	09/06/16	24:00	30.20	741.00	41.80	1,706.40		144.06	0.084		134°	2.56
Y	Fri	09/09/16	24:00	25.70	738.00	42.00	1,712.69		263.10	0.154		144°	1.30
	Mon	09/12/16	24:00	24.10	742.00	42.40	1,730.02		214.73	0.124		142°	2.82
Y	Thu	09/15/16	24:00	24.30	743.00	42.60	1,737.83		1,687.87	0.971		128°	3.34
	Sun	09/18/16	24:00	24.60	740.00	42.50	1,732.37		64.15	0.037	0.15	158°	0.51
Y	Wed	09/21/16	24:00	23.50	743.00	42.50	1,733.30		801.09	0.462		131°	2.39
	Sat	09/24/16	24:00	22.60	743.00	43.00	1,752.78		1,382.40	0.789		132°	3.13
Y	Tue	09/27/16	24:00	17.10	735.00	42.80	1,743.27		104.36	0.060		287°	2.78
	Fri	09/30/16	24:00	19.20	743.00	43.00	1,752.22		390.44	0.223		355°	0.99
Y	Mon	10/03/16	24:00	21.10	742.00	42.70	1,742.59		1,796.45	1.031		134°	0.92
	Thu	10/06/16	24:00	23.00	740.00	42.60	1,737.61		140.99	0.081		139°	1.86
Y	Sun	10/09/16	24:00	16.70	749.00	43.60	1,777.84		167.70	0.094		120°	1.33
	Wed	10/12/16	24:00	12.70	743.00	43.60	1,778.69		52.22	0.029		308°	0.66
Y	Sat	10/15/16	24:00	20.90	738.00	42.50	1,734.66		34.90	0.020		147°	3.39
	Tue	10/18/16	24:00	19.80	737.00	42.60	1,736.05		44.33	0.026	0.19	260°	0.23
Y	Fri	10/21/16	11:25	13.07	746.47	44.08	**861.23**		53.01	0.062i		330°	1.33
	Mon	10/24/16	24:00	22.70	750.00	0.00	**0.00**			i		330°	0.89
Y	Thu	10/27/16	24:00	9.70	746.00	44.00	1,793.96		62.38	0.035		337°	0.61
	Sun	10/30/16	21:44	21.30	746.00	4.80	**179.73**	POWER		j		19°	0.33
Y	Wed	11/02/16	24:00	15.40	744.00	43.20	1,762.13		70.50	0.040		70°	0.39
	Sat	11/05/16	24:00	13.70	748.00	43.60	1,777.31		30.95	0.017		149°	0.53
Y	Tue	11/08/16	24:00	10.40	747.00	44.00	1,794.01		50.22	0.028		333°	1.41
	Fri	11/11/16	24:00	6.10	751.00	44.50	1,815.11		169.53	0.093		345°	0.95
Y	Mon	11/14/16	24:00	9.70	738.00	43.30	1,767.17		30.05	0.017		147°	0.84
	Thu	11/17/16	17:06	17.60	734.00	43.60	**1,265.68**	POWER	128.74	0.102 k	0.18	144°	4.31
Y	Sun	11/20/16	24:00	1.00	749.00	44.90	1,831.96		14.06	0.008		326°	1.37
	Wed	11/23/16	24:00	7.70	739.00	43.80	1,785.04		630.80	0.353		131°	2.40
Y	Sat	11/26/16	24:00	7.00	744.00	44.60	1,818.14		14.06	0.008		145°	2.08
	Tue	11/29/16	24:00	8.60	729.00	43.00	1,754.85		32.83	0.019		141°	2.27

a. Lab analysis by RTI International in Research Triangle Park, NC.

b. Arithmetic average of all sampling events during the previous three calendar months.

i. Brushes on electric motor failed at 19:00 hrs on October 21st terminating sample collection. Results reported for October 21 represent 11.5-hrs of sampling time. Failure of the electric motor was not discovered until completion of the October 24th sampling event, when the operator noted the motor did not operate and no air was passed through the filter. The October 24th filter was submitted for analysis as a 'field blank' with a reported total mass of lead of 17.7-ug.

j. The compression gasket on the electric motor mount failed allowing the motor to change position disconnecting the power supply wires to the motor shortly after commencement of the sampling event. The total reported sample volume for this event was approximately 10% of normal and was therefore considered to be an invalid sample and the filter was not submitted for analysis. The gasket was replaced and the sampler was returned to normal operation for the November 3rd sampling event.

k. The air sampling rate for the first 45-minutes of the sampling event (07:30 to 08:15) was below the set point because the electrical motor was gradually disconnecting from its housing before shorting out and stopping completely at 08:45. When operators noted this problem, the motor was repaired and resumed normal operation at 15:05 and continued to operate normal until the end of the sampling period at 07:30 on Nov. 18th.

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Ambient Air Lead Monitoring Report
Behr Site

1100 SEMINARY STREET
ROCKFORD, ILLINOIS
SITE ID NO.: 201030AYB

Report Date: December 08, 2016

APPENDIX A

USEPA Schedule of Lead Sampling Days for 2016

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EPA Sampling Schedule 2016

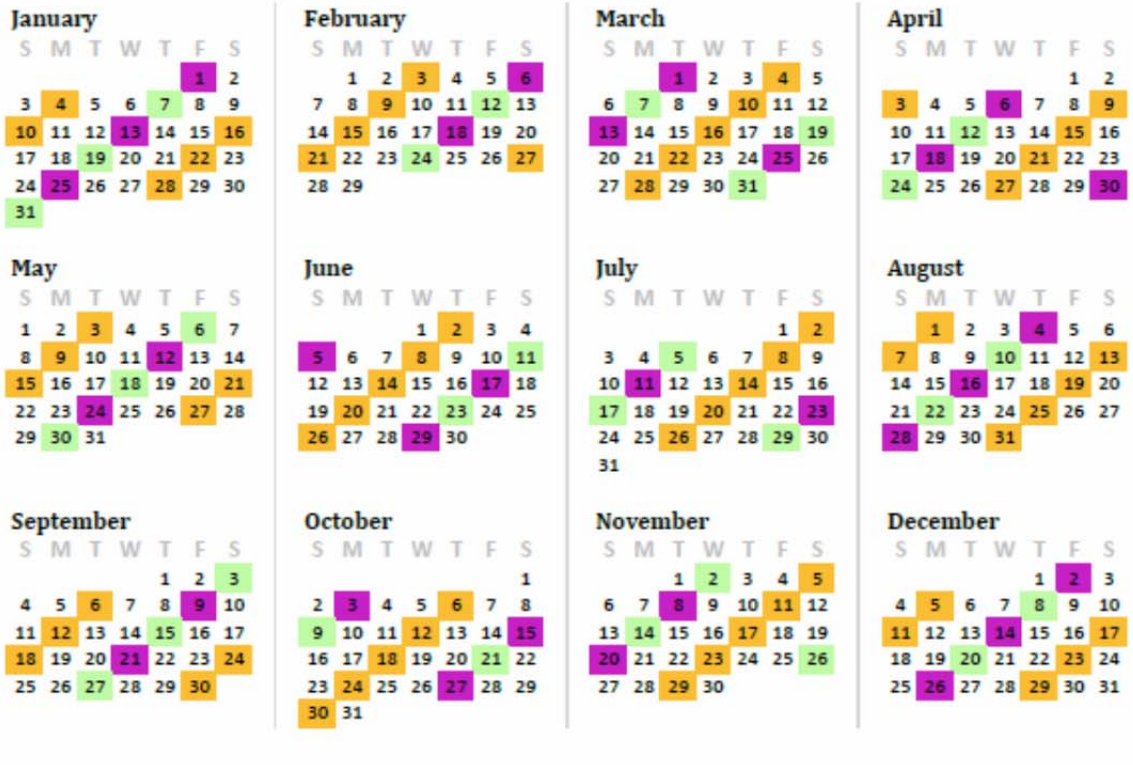
Important Dates

Notes

3-Day schedule is shown in orange, green, and purple

6-Day schedule is shown in green and purple

12-Day schedule is shown in purple



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Ambient Air Lead Monitoring Report
Behr Site

1100 SEMINARY STREET
ROCKFORD, ILLINOIS
SITE ID NO.: 201030AYB

Report Date: December 08, 2016

APPENDIX B

RTI International Analytical Results

November 11 through November 29, 2016

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RTI INTERNATIONAL
3040 Cornwallis Road ▪ PO Box 12194 ▪ Research Triangle Park, NC 27709-2194 ▪ USA
Telephone 919 541-6000 ▪ Fax 919 541-5985 ▪ www.rti.org

December 6, 2016

Andrew Setter
Behr Iron & Metal
1100 Seminary Street
Rockford, IL 61104

Dear Mr. Setter:

RTI International analyzed the TSP filter samples you provided in accordance with 40 CFR Part 50, Appendix G. The results are summarized below in Table 1.

Table 1. TSP Filter Results
µg/Filter

Filter ID	Date Collected	Lead
9329356	11/29/2016	32.8
9329357	11/26/2016	14.1
9329358	11/23/2016	631
9329359	11/20/2016	14.1
9329360	11/17/2016	129
9329361	11/14/2016	30.1
9329362	11/11/2016	170

Please refer to the attached spreadsheets "Behr Set 11 Data" and "2016 Pb TSP Audit Filters December" for quality control information. The remaining filter sections will be held for 6 months. Please call me at 919-541-8762 or email me at fxw@rti.org if you have any questions.

Sincerely,

Frank Weber

Frank Weber
Laboratory Manager

cc: Project file 0212431.002.053
Lisa Bailey, RTI/ORC

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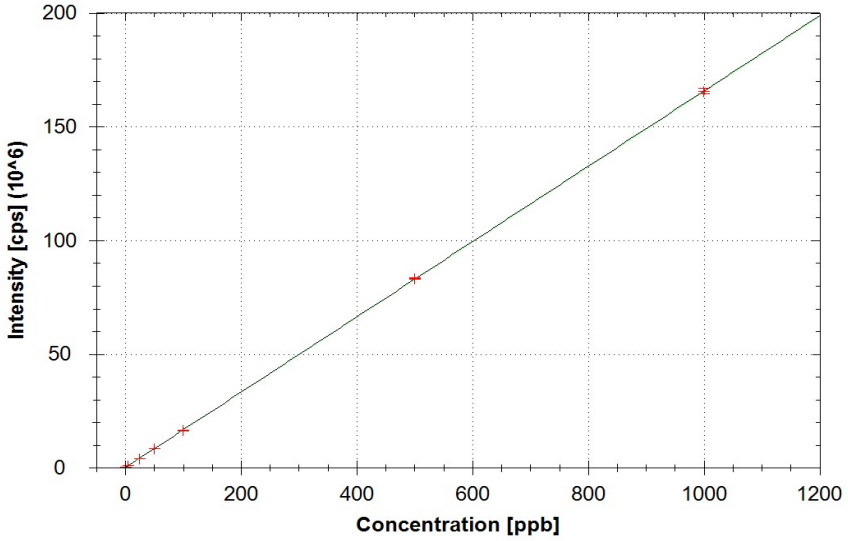
0212431.002.053 Set 12

Calibration Standards

	Lead µg/L	% Recovery
Blank	0.000	n/a
5	4.69	94
25	24.1	96
50	49.5	99
100	98.2	98
500	501	100
1000	999	100



Initial and Continuing Calibration Verifications

	Lead µg/L	% Recovery
ICV	201	100
CCV1	200	100
CCV2	194	97
CCV3	196	98
CCV4	194	97

Initial and Continuing Calibration Blanks

	Lead µg/L		
ICB	-0.103	<RL	RL=5µg/L
CCB1	-0.107	<RL	
CCB2	-0.105	<RL	
CCB3	-0.047	<RL	
CCB4	-0.108	<RL	

Lower Level Calibration Verifications

	Lead µg/L	% Recovery
LLCV1	11.6	96
LLCV2	11.6	97

Reagent Blanks/Reagent Blank Spikes

	Lead µg/L	% Recovery
RB	-0.113	<RL
RBS	240	96

Certified Reference Material

	Lead µg/L	Lead mg/kg	% Recovery	weight (g)	NIST 2711 Montana Soil
CRM	2622	1030	89	0.1018	Certified Value = 1162mg/kg
Filter Blank	1.07				

Matrix Duplicates

	Lead µg/filter	RPD
9329357	14.1	
9329357 Dup	12.1	15

Matrix Spikes

	Lead µg/filter	% Recovery
9329357	14.1	
9329357 Spk	115	84

Serial Dilutions

	Lead µg/filter	% Difference
9329360	129	
9329360 1:5 SD	132	3

MDL	Lead µg/filter
	0.0832

TSP strips

	Date	µg/L	final vol (L)	**µg/strip**	**% Recovery**	Actual
BAT-TSP-2016-01-314	10/21/2016	336	0.040	13.42	92	14.63
BAT-TSP-2016-02-227	10/21/2016	1540	0.040	61.61	97	63.57
BAT-TSP-2016-01-391	11/21/2016	335	0.040	13.38	91	14.63
BAT-TSP-2016-02-067	11/21/2016	1504	0.040	60.16	95	63.57

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Ambient Air Lead Monitoring Report
Behr Site

1100 SEMINARY STREET
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SITE ID NO.: 201030AYB

Report Date: December 08, 2016

APPENDIX C

Meteorological Station Data – Hourly Averages

November 11 through November 29, 2016

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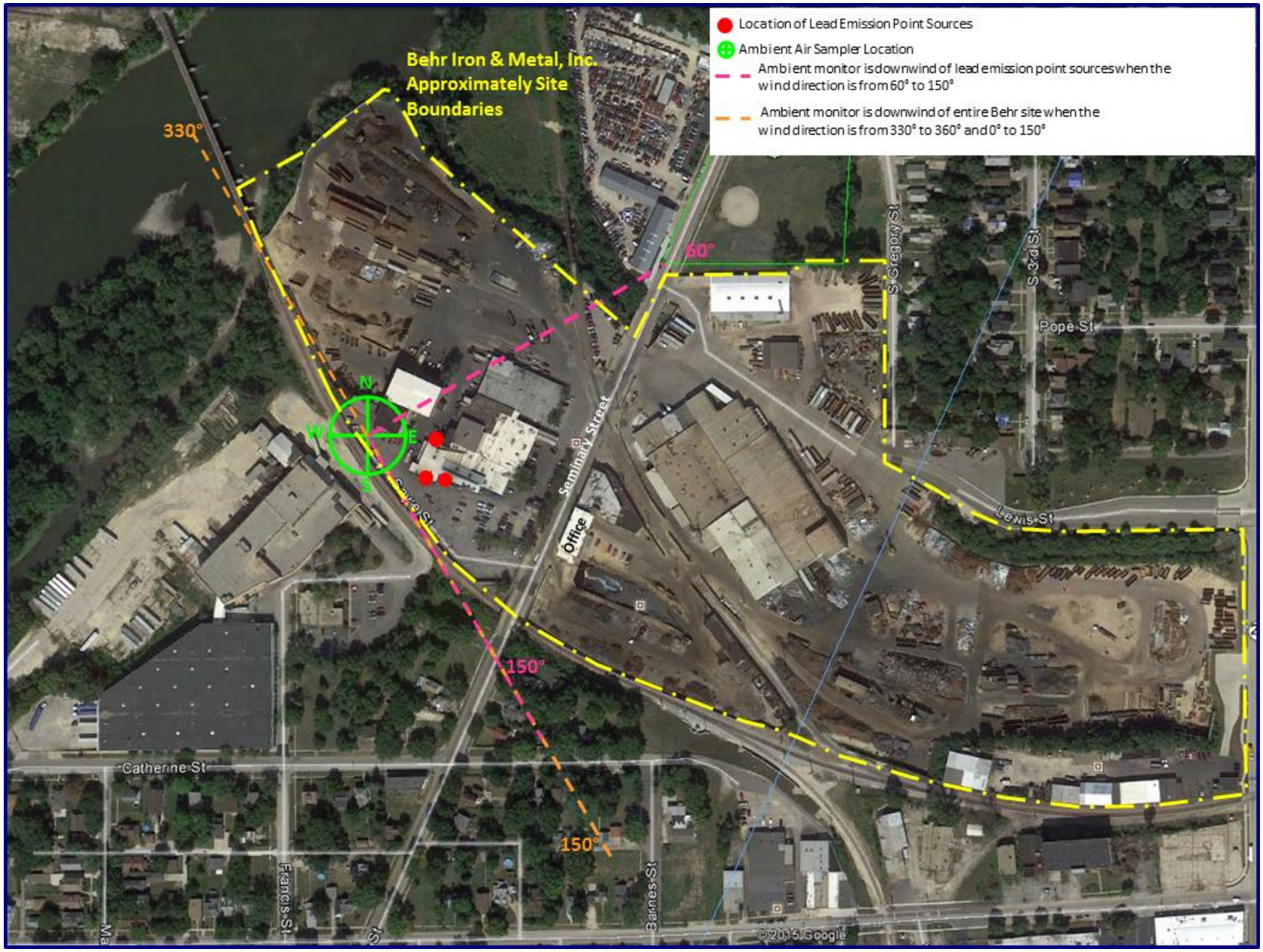

Ambient Monitor Location with Respect to Site Emission Points and Site Boundaries

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Summary of Hourly Meteorological Data for Ambient Sampling
Ambient Air Sampling Days - November 11 Through November 29, 2016
Behr Iron & Metal, Inc. - Rockford, Illinois

Date	Hour	Average Barometric Pressure mmHg	Average Temp °F	Hourly Average Wind Speed mph	Hourly Average Wind Direction Deg	Average Daily Wind Direction Deg	Average Daily Wind Speed (mph)
11/11/16	1	763	50.6	0.80	289°		
	2	764	48.0	0.52	131°		
	3	765	46.4	0.28	31°		
	4	765	47.6	1.46	326°		
	5	766	46.7	1.44	338°		
	6	766	45.7	1.07	334°		
	7	767	44.3	0.52	291°		
	8	768	43.1	0.93	322°		
	9	769	44.8	1.89	338°		
	10	770	49.1	1.58	354°		
	11	770	51.3	1.40	11°		
	12	771	53.1	1.38	5°	345°	0.95
	13	771	53.4	1.73	344°		
	14	771	53.1	1.99	346°		
	15	771	53.2	1.22	347°		
	16	771	52.3	1.65	352°		
	17	772	50.3	1.66	342°		
	18	772	48.3	1.58	336°		
	19	773	45.7	0.96	344°		
	20	773	44.1	0.67	353°		
	21	774	42.3	0.55	5°		
	22	774	40.5	0.40	110°		
	23	774	39.2	0.08	89°		
	24	774	37.9	0.21	143°		
11/14/16	1	762	46.9	2.83	119°		
	2	762	45.9	2.86	128°		
	3	761	43.3	2.10	138°		
	4	761	41.2	1.73	141°		
	5	760	40.9	1.62	134°		
	6	760	41.5	2.01	146°		
	7	760	42.0	1.75	143°		
	8	760	42.4	1.43	140°		
	9	760	42.5	1.05	139°		
	10	760	46.6	2.04	141°		
	11	760	50.1	1.95	139°		
	12	760	54.7	1.38	140°	147°	0.84
	13	759	58.1	0.40	196°		
	14	759	59.5	0.53	246°		
	15	758	60.8	1.06	276°		
	16	758	60.7	1.13	284°		
	17	759	59.3	1.99	282°		
	18	759	56.9	0.35	145°		
	19	759	53.1	0.13	187°		
	20	759	49.9	0.02	237°		
	21	759	47.7	0.33	140°		
	22	759	45.3	0.09	192°		
	23	759	43.8	0.17	263°		
	24	759	42.6	0.14	186°		

Summary of Hourly Meteorological Data for Ambient Sampling
Ambient Air Sampling Days - November 11 Through November 29, 2016
Behr Iron & Metal, Inc. - Rockford, Illinois

Date	Hour	Average Barometric Pressure mmHg	Average Temp °F	Hourly Average Wind Speed mph	Hourly Average Wind Direction Deg	Average Daily Wind Direction Deg	Average Daily Wind Speed (mph)
11/17/16	1	759	49.4	3.94	135°		
	2	759	50.1	3.54	137°		
	3	758	50.2	3.00	135°		
	4	758	51.0	3.85	138°		
	5	757	51.3	4.18	136°		
	6	757	51.3	3.64	141°		
	7	757	50.8	3.52	137°		
	8	756	50.5	4.13	139°		
	9	756	51.4	3.73	138°		
	10	756	54.4	4.44	138°		
	11	756	59.4	5.28	145°		
	12	756	63.8	6.02	148°	144°	4.31
	13	755	68.5	5.78	144°		
	14	754	71.2	5.45	143°		
	15	754	72.7	5.74	146°		
	16	754	73.0	5.96	151°		
	17	754	72.1	4.85	150°		
	18	754	69.5	4.28	145°		
	19	755	66.7	3.66	150°		
	20	755	65.2	3.99	149°		
	21	755	64.4	3.77	145°		
	22	755	64.1	4.06	152°		
	23	756	62.7	3.53	147°		
	24	756	61.4	3.49	149°		
11/20/16	1	770	26.0	2.71	298°		
	2	770	25.3	2.82	318°		
	3	770	24.6	2.55	319°		
	4	770	24.0	2.48	313°		
	5	771	23.4	2.03	319°		
	6	771	23.4	1.57	327°		
	7	771	22.4	1.45	295°		
	8	771	22.6	1.58	293°		
	9	772	23.9	1.68	312°		
	10	772	25.9	1.96	331°		
	11	772	29.2	2.68	344°		
	12	772	29.5	2.33	339°	326°	1.37
	13	771	31.1	2.45	338°		
	14	771	33.1	2.47	326°		
	15	770	35.1	1.92	333°		
	16	770	34.5	1.49	341°		
	17	770	33.8	1.30	341°		
	18	770	32.7	1.10	345°		
	19	770	31.5	0.44	17°		
	20	770	30.2	0.30	10°		
	21	770	29.4	0.80	134°		
	22	769	28.7	1.06	131°		
	23	769	28.1	1.08	136°		
	24	770	27.2	0.05	107°		

Summary of Hourly Meteorological Data for Ambient Sampling
Ambient Air Sampling Days - November 11 Through November 29, 2016
Behr Iron & Metal, Inc. - Rockford, Illinois

Date	Hour	Average Barometric Pressure mmHg	Average Temp °F	Hourly Average Wind Speed mph	Hourly Average Wind Direction Deg	Average Daily Wind Direction Deg	Average Daily Wind Speed (mph)
11/23/16	1	766	36.6	4.10	129°		
	2	765	36.0	5.44	127°		
	3	764	36.2	5.44	123°		
	4	764	36.8	4.64	128°		
	5	763	37.5	5.36	126°		
	6	763	38.0	5.98	126°		
	7	762	38.5	5.07	130°		
	8	762	38.6	5.01	129°		
	9	762	39.0	4.65	125°		
	10	762	39.7	4.19	125°		
	11	762	40.4	3.91	126°		
	12	761	40.8	4.17	130°	131°	2.40
	13	760	41.3	3.38	129°		
	14	760	41.9	2.88	130°		
	15	760	42.4	2.35	135°		
	16	759	43.0	1.83	138°		
	17	759	43.4	0.81	144°		
	18	760	43.4	0.96	139°		
	19	760	43.2	0.77	282°		
	20	760	43.0	1.54	284°		
	21	761	42.8	2.00	293°		
	22	761	42.4	2.49	298°		
	23	761	41.7	2.94	304°		
	24	762	40.7	3.08	303°		
11/26/16	1	771	37.2	2.59	279°		
	2	771	37.0	2.35	300°		
	3	771	36.9	2.27	307°		
	4	771	36.9	0.75	287°		
	5	771	36.9	1.55	140°		
	6	771	37.0	1.84	142°		
	7	770	37.0	1.66	141°		
	8	770	37.2	2.14	140°		
	9	770	36.6	2.13	135°		
	10	770	37.4	3.02	142°		
	11	770	39.7	3.55	140°		
	12	770	41.8	4.23	146°	145°	2.08
	13	769	44.2	4.29	144°		
	14	768	46.3	4.17	144°		
	15	767	48.5	4.07	141°		
	16	767	48.7	4.04	144°		
	17	766	47.2	3.74	141°		
	18	765	45.3	3.68	142°		
	19	765	43.6	2.77	138°		
	20	766	42.4	1.78	136°		
	21	766	41.1	1.97	141°		
	22	765	40.5	2.32	143°		
	23	765	39.5	1.97	135°		
	24	765	38.3	1.91	141°		

Summary of Hourly Meteorological Data for Ambient Sampling
Ambient Air Sampling Days - November 11 Through November 29, 2016
Behr Iron & Metal, Inc. - Rockford, Illinois

Date	Hour	Average Barometric Pressure mmHg	Average Temp °F	Hourly Average Wind Speed mph	Hourly Average Wind Direction Deg	Average Daily Wind Direction Deg	Average Daily Wind Speed (mph)
11/29/16	1	742	49.7	1.01	96°	141°	2.27
	2	744	47.3	2.28	108°		
	3	744	45.8	3.09	132°		
	4	745	43.7	3.00	147°		
	5	745	43.1	2.34	142°		
	6	745	41.8	2.15	145°		
	7	747	40.7	2.89	145°		
	8	748	40.6	2.63	143°		
	9	748	39.8	2.07	143°		
	10	749	42.3	3.47	145°		
	11	750	45.4	4.07	141°		
	12	750	48.2	4.14	131°		
	13	750	50.1	4.46	140°		
	14	750	51.6	4.78	141°		
	15	749	52.9	3.83	145°		
	16	749	53.1	3.67	143°		
	17	749	52.8	2.93	147°		
	18	750	51.4	1.22	141°		
	19	750	48.4	0.89	143°		
	20	750	46.5	0.48	158°		
	21	750	44.2	0.34	182°		
	22	751	41.2	0.26	167°		
	23	751	39.7	0.45	155°		
	24	752	38.3	1.28	277°		